1983

MEMOIR

ON THE USE OF

SHELLS, HOT SHOT,

AND

CARCASS SHELLS,

FROM

SHIP ARTILLERY.

By FRANK ABNEY HASTINGS,

CAPTAIN OF THE GREEK STEAM VESSEL OF WAR,

KARTERIA.

LONDON:

JAMES RIDGWAY, PICCADILLY.

M.DCCC.XXVIII.

PREFACE.

THERE are few men who have visited Greece, and who can write, who have not been delivered of a book on their return to Europe, as it is called, (and justly so,) in this part of the world. I have hitherto, resisted the temptation of writing myself, Author; and as I had half pledged myself not to give my enemies (if I have any) such an advantage over me, as they will now possess, I will simply relate how I have been led to take this rash step. I was before the Fort of Vasiladhi, bombarding it; a friend who came from England with me, and to whom I have great obligations, was a visitor with me, and left for Egina, (via the Gulf of Lepanto,) rather despairing of our success; at length, hearing of it, he wrote me the following letter.

Ægina, January 4, 1828.

" My dear Hastings,

" I had a good passage through the enemy's Castles, and the day after, saw the army at Trisognia, six hundred men, in a strong Palao Castro: they sent a ship, a Valpori, to defend Trisognia, and would not listen to my proposition of fortifying it, which I told them would not cost one eighth of a vessel for two months, and would be a surer defence: they have written Lord Cochrane on the subject, &c.

" *January* 5. I have just received your letter, and you can imagine how delighted I was. Well, Fortune has certainly played you one or two tricks with old Bampori; but now she has balanced matters. Human ingenuity is sadly at fault with these pudding-headed Turks, as was proved by our sage conjectures on the letter (2). In spite of your success, I am sure you are in sad difficulties for provisions, &c. but I hope God will give you some assistance.

I hope Hane is Commandant of Vasiladhi; and if he will give me a house, I may come and see his city. I suppose you will be unable to do any thing at Anatolico, as, &c. &c.

"The English new twenty-eights are frigates; the Columbine, an eighteen gun corvette, beats them all, but is crank; the frigates are stiff, and can use their guns when the corvettes cannot. The George the Fourth is launched; she is pierced for one hundred and thirty-six guns, and has thirty-two pounders on her lower and middle decks; twenty-fours on her main deck; on her quarter deck, and forecastle, thirty-two pound carronades, and long twelves. What a vessel she would be with your sixty-eights on her three decks; and what castles of Lepanto would stand her rattling shells at them? She might have gone into Navarino alone, and done the business, even more effectually. You really ought, and I hope you will, when you have leisure, write a pamphlet, if not more, on your views concerning Marine Artillery. I see Lord C—— is quite of your opinion about large

guns, and *good firing*, and thinks one gun, if big enough, quite sufficient. You may imagine I am in high spirits at your success, &c.

"The Irresistable Greek steam vessel, you, perhaps, have heard, took fire in the river, and was burnt to the water's edge. There has been the most extraordinary degree of folly, roguery, and bad fortune, in these Greek officers, which were, we suspect, accumulated in one mass.

"Yours, ever sincerely,

———"

Shortly after receiving this friendly epistle, as I had little to do, I occupied myself in writing the following pages. I have not shown them to my friend, because I know he would disapprove of the general style and tone of the work, whilst he might consider the matter itself less objectionable; but, as I hate writing, and if I was to make another attempt, should not succeed better, this must even go to the press as it is.

MEMOIR,

&c.

THE Science of Artillery has been studied in the British Navy much more generally, of late years, than formerly. The importance of attaining the most perfect Artillery practice from Ships, seems now to be duly appreciated. There was a time, when, to know that the cartridge ought to be put into the gun before the shot, was considered all the Artillery knowledge requisite to form a British Naval Officer; even at this day, I believe, gunnery does not form a part of the examination to qualify a Midshipman to be promoted to the rank of Lieutenant; therefore any knowledge acquired by Officers of the Navy in the art of gunnery, is obtained gratuitously. When we consider that Naval battles are always fought, and ninety-nine times out of a hundred decided by Artillery, is it not strange that a knowledge of

the principles of the art should not be considered essential to the forming of a Naval Officer? The Officers of the British Navy used to be (and, I believe, are still) the best Men of War Seamen in the world; but all the Seaman's help in the world will avail little, if your Artillery practice is inferior to that of your enemy. It has been a good deal the fashion, (I suspect, however, more out of the Navy than in it,) to attribute the success of the British Navy to advantages obtained by Manœuvering. For my part, I feel convinced, that in nine Naval battles out of ten, the superior Artillery practice must win, even though coupled with inferior seamanship to that possessed by the enemy. Manœuvering is a very indefinite word, and that is one reason why I dislike it. There are fashions in manœuvering as in the cut of a coat;—formerly, the weather-gage was the desideratum;—that has, however, lost its value; and raking is now the enviable position. There are circumstances, it is true, where a raking position may be decisive of a victory; as, for instance, at anchor, or even at sea, passing under the stern of an enemy in discharging the first broadside; but at sea, in single actions, (to which I chiefly allude,) manœuvering for a raking position will usually be attended with risk, not at all compensated

for by the position, if you gain it. In attempting it, a few ropes shot away may lose you the battle: when attained, this raking position being but momentary, does not admit of the guns being relaid, which is rendered necessary by the change in the inclination of the Ship, and, probably, some have not yet been reloaded after a discharge; thus it is more than probable, that two or three shots are the utmost that take effect in a whole raking broadside. Sir Howard Douglas, in his valuable work on Naval Gunnery, makes the same remark, I think, upon broadsides given in yawing: now raking broadsides in manœuvering, are, literally, yawing broadsides. The less the inclination and direction is altered whilst firing, the more correct is the fire likely to prove. Far be it from me to undervalue the merit of the seamanship of the Officers of the British Navy; for, to this, British Naval superiority is principally due. A battle is not all gained on the day of the battle; it is alone by being conversant in all the details of a Ship, and by daily assiduity in preparing precautions against accidents, and proper attention to the health and discipline of a crew, that British Men of War can keep the sea for several months, not only without suffering, but with such advantage as to be in better condition to encounter an enemy

at the end, than at the commencement of their cruize.

As a proof how little gunnery was studied in the British Navy, I had served seven years, and been in two Naval Battles, without knowing that the line of metal was not parallel to the cylinder of the gun. I shall, probably, be laughed at for this acknowledgment; but let those who laugh prove they were better informed. I heard old sailors say, that shot rose at sea on quitting the gun, and took for granted their explanation of the shot going above where aimed at. The first attempt which I saw, of giving the line parallel to the cylinder, (it was a clumsy one enough for sea, God knows,) was by painting three white lines along the gun, viz. one from each quarter sight, and one along the top sight. In the act of exercising, some bothered old gunner, half drunk, or wholly stupid from previous habits of drunkenness, mumbled out, "Look along your side sights for your elevation;—look along your top sights for your direction;—cock your locks—fire." During which operations, the ship had lurched to leeward, rolled to windward, pitched forward, sended aft half a dozen times, altering the elevation a dozen degrees at each movement, and the direction some points. I have no doubt but that this quarter-sight

system, produced worse firing than the less scientific one of the old seamen, who, upon the received maxim that the shot rose on quitting the gun, looked along the line of metal, and at point blank ranges pointed under the object by guess. The new system, however, had the merit of showing the principle (and owing to its clumsiness) of exercising the ingenuity of these men not altogether stultified by love of routine, (3) and produced the top-sight parallel to the bore, than which nothing can be better for point blank ranges; ultimately, some Officers placed raised sights on the guns for firing at angles of elevation, arranged in various ways, according to their taste, or the capacity of the workmen they had to execute them. (4) Sir W. Congreve has since, I understand, introduced a sight, of which the principle is the same as of all other sights for elevation, but has the objection of being more costly and more complicated. Since it is but recently that any tolerable precision has been obtained in ship firing, or that Naval Officers have become acquainted with the first principles of the art, it is not astonishing that the old system of round shot and full charges should be invariably used, whatever the distance, or the nature of the object fired at. People, little conversant with Naval matters, are not aware how much hammering

a ship may take without sinking; or even how difficult it is to sink a ship at all by firing at her with round shot. Witness all the Naval battles of the last war. Almost the only way a shot can penetrate under water, is by the movement of the ship; which at one moment exposes above water a part afterwards emersed. A shot fired from a ship from, perhaps, two degrees depression, to five or six degrees elevation, (5) will ricochet on the water, and therefore cannot, by possibility, strike the ship under water, but by the movement of the ship: such shots as do not ricochet, will, usually, be too much deadened to penetrate a ship under water, should they come in contact with her bottom, which is improbable, from the angle a ship's bottom makes with the horizon. In fact, the object in a naval battle always was to kill the crew, as the readiest way of getting possession of the ship; and thus naval actions have lasted much longer than one conversant with naval affairs would imagine possible, when fighting so close.

(6) Being engaged in a naval warfare, where our matériel was so excessively inferior to that of our enemy, as to leave no hope of success, whilst using the same mode of war, I turned my thoughts to some projectile more destructive than ordinary round shot, and I at first

proposed hot shot; there is nothing new in this; it is what coast batteries usually employ against shipping; it is what destroyed the floating batteries of the Spaniards at Gibraltar; it is what has been used already by shipping; and if in this latter case, without any important result, the failure may, perhaps, be ascribed to an injudicious manner of using them. The chief objection to the use of hot shot on board a ship, is, that the gun, after being loaded, has to be run out, to be pointed, &c. during which operation, if the fire should communicate to the cartridge, the people working the gun would be endangered. However, I imagined that, with a wet clay wad between the yarn wad and the shot, it was next to impossible any accident should occur. I made the experiment, and found that, although the exterior of the gun about the shot became very hot, and remained so for a length of time, nevertheless the shot became cold in the gun, without any accident. I have since continually used hot shot, and with perfect safety; my people having become familiar with them, employ them with as little apprehension as if using cold shot. The clay wad, however, has the inconvenience of fouling the gun; and there are these objections to hot shot; namely, the length of time required to heat them, and the

small quantity there is a possibility of heating on board a ship; consequently, hot shot can only be used in limited numbers, and for particular occasions. A French officer, M. Jourdan, arrived in Greece, with a project of incendiary balls, which he cast, in fact, as carcasses, and proposed to fire from guns at shipping; and, according to his calculation, they were to burn the whole Turkish fleet. However, he only succeeded in burning an hydriote, and his own hat; his incendiary balls went off in smoke, as they should have done. The absurdity of this project, and its failure, occasioned the neglect of a proposition of his, which merited a better fate; namely, the use of carcass shells. I relate this, because it was what first directed my attention to the use of shells from guns. I reflected upon it alone, and I conversed upon it with artillery officers, until I was satisfied within myself of its practicability and utility; yet I could not convince any body else; but, on the contrary, got heartily laughed at for my pains, (so I have been told,) by Lord Byron, and some other genius's. When half ashamed of my project, and sadly in want of some countenance, I had the good fortune to see the work of M. Pauchans, and resolved, not only to prosecute my project of shells, but to adopt his ideas on the canon à bombes; and I take

this opportunity of returning my grateful thanks to M. Pauchans for the essential service his book has rendered me, and to assure him, I have no pretension to be thought the original projector of an aim, the merit of the introduction, and the success of which, is entirely due to him.

Having obtained the command of a steam vessel, destined for Greece, (8) I prepared for her armament eight sixty-eight pounders; four of these carronades, Government pattern, thirty-six hundred weight, five feet two inches, and four long shorts, after drawings I gave; these were seven feet four inches long, and fifty-eight hundred weight, with the form of a carronade in all, but having trumicons to mount them, the same as long guns; but these trumicons are not placed, as is usual in long guns, below the line of the quarter sight, (to admit of which sight is the only reason I could ever imagine for placing them thus low,) but so as to intersect the gun horizontally. On my arrival in Greece, the guns were there, but without carriages: I then proceeded to mount them on four ten inch howitzer carriages, which have answered the purpose admirably; these had originally dumb trucks in the rear of cast iron, which I changed for wood; these dumb trucks deadened the recoil very advantageously; at the expence, however, of more labour in run-

You may place your fuzee next your cartridge without doing any further injury than bursting the shell in going out of the gun; you will neither injure the gun nor yourself; I have tried it.

At the Island of Samos I made experiments on the different ranges with different charges, and found, to my surprise, that, fired with more than four pound charges, the shells usually lost their fuzees: the extreme ranges, from the long guns, was particularly satisfactory; I calculated about two thousand five hundred yards, with four pounds, at point blank; the carronades were by no means so true, or did they give near equal ranges. Anxious to increase the charges, if necessary, I tried a variety of methods of driving the fuzees, so as to prevent their falling out, and have at length succeeded by tying a piece of leather round that part of the fuzee which is inside the shell, and diminishing the fuzee, so as to allow the leather to go with some difficulty into the fuzee hole; when driven in, the leather naturally expands, and prevents the fuzee from coming out again; thus

a wooden spring would be still better. I found that, with this contrivance, a shell will retain its fuzee, fired with ten pounds

ning them out; but I thought the decrease of recoil on these terms desirable; I ultimately fitted an iron lever, with two rollers, which hooking on to the rear of the carriage, lifted the dumb trucks off the deck in running out the guns, thus facilitating running out the guns, and diminishing their recoil. The carronades had the usual carriages and slides. I had prepared in England six hundred eight inch shells, strapped to wooden bottoms; the object of the wooden bottoms was to preserve the shell in the proper direction; viz. with the fuzee towards the muzzle of the gun; these not having arrived, I substituted two giummets of rope or salvegee, frapped together by yarns, and found it to answer the purpose; but as it consumed much rope and yarns, I tried one giummet, frapped to the fuzee head, and found it to answer even better than the two giummets, and, ultimately, I fired without any giummets or wooden bottom at all, taking particular care to place the fuzee in the proper direction; this, of course, will not succeed if there is much motion; but in moderate weather, not more than one shell out of thirty will break its fuzee, and this will never be attended with any danger, the shell always bursting outside the gun, and all the pieces going like grape or langrage, in the direction the gun was pointed.

of powder; and, to my surprise, saw more than nine out of ten burnt under water.

An objection which I have frequently heard made to the use of shells on board of a ship is, the danger of having a quantity of loaded shells continually on board; to me, loaded shells have always appeared less dangerous than powder in cartridges, or in any other form. I placed each loaded shell in a box; these were stowed in the shell room in rows, retained by stauncheons and shifting battens; and on the lid of each box was written the length of the fuzee, and nature of the shell; each shell was handed up in its box, and only taken out of it at the moment of being placed in the gun; how there can be any danger in using shells thus, sufficient to justify an objection to their use, I am at a loss to conceive; certainly there is danger in using gunpowder at all, but there is a less liability to accident from a shell, than from a cartridge; and I am prepared to prove, however paradoxical it may appear at first sight, that the liability to accidents from explosion on board a ship, is much diminished by the use of shells. I have fired about eighteen thousand shells from this ship, and have never had the slightest accident from explosion; the

guns have never broken a breeching, drawn a bolt, or injured a carriage. I was but in two naval actions in the British service, in each of which we had accidents. In the Neptune, in the battle of Trafalgar, an explosion on the lower deck killed and wounded sixteen men. In the Seahorse, with the Badla Zaffar, a gun going off while loading, killed one or two men.

I went with the Karteria into the Piceus, to batter a Monastery possessed by the Turks; our shells did infinite mischief: there was a storehouse to the right of the Monastery, in which it was remarked there were some Turks; I ordered our fire to be directed upon it; two shells, bursting at the same moment inside, brought the whole fabrick to the ground, leaving but a heap of stones, out of which walked, to our surprise, five Turks, proving (what I have remarked, on other occasions,) how much less destructive to life Artillery is than people usually imagine. Upon another day I went into the Piceus, to support Colonel Gordon, who was attacked by Kutayi Pashaw: the Turks had several pieces of Artillery, and fired chiefly grenades from howitzers at us: several of these struck us without exploding; but one, from an eighteen pounder, exploded in the counter, and tore out the planking of two streaks for a length of six feet, and started

out the planking from the two adjacent streaks; in a sea way, a ship, built in the usual manner, (9) would have been sunk by the explosion of nine ounces of powder; what then might not be expected from the explosion of two and a half pounds of powder, which a sixty-eight pound shell contains, even with space for some incendiary composition.

I was engaged with some fascine batteries at Oropo; a shell set fire to one, and burnt it entirely, blowing up the powder they had in it.

I was engaged in the harbour of Volo with the batteries; our shells did great execution, and some hot shot set a part of the town on fire, which was, however, soon extinguished.

I was engaged in endeavouring to destroy a Turkish brig of war at Tricheu. I fired hot shot, and burnt her; one shell exploded on board of her; but this was after she was on fire.

Perceiving that the weight of our shot broke frequently through both sides of small vessels, and required long to heat, I imagined at Salona to heat empty shells, for which purpose I plugged up the furze hole; whilst heating them, the air expanding inside, forced out the plugs with a considerable explosion: I afterwards fired them with the furze hole open. If

I were to use them again, I should stop up the furze hole, all but a very small vent to carry off the rarefied air. On this occasion I fired hot shells from a short long forward; carcass shells, with five orifices, from a short long aft, and shells from two carronades: by the time we had fired twice, a brig of war blew up, owing to a shell exploding in her magazine; an armed transport brig sunk forward, owing to a shell exploding in her bow, and was set on fire aft by a hot shell. A schooner of war was set on fire by a carcass, at least I imagine so; although, in contradiction to the statement to his Consul at Patras, of an Austrian serving on board another Turkish schooner at Salona; who says, the Turks set fire to her; in all else his statement and mine agree. My reason for thinking we burnt her, is, that as she continued firing after all the other vessels were abandoned, I ordered the after gun to fire a few carcass shells into her; and as I saw one strike her, I have reason to think the Austrian mistaken. Another schooner, of sixteen brass twelves, had received two of our shells; one burnt on board, tore up the deck, and killed three men; the other was found in the hold, and had not burnt; she was abandoned (10.) We were distant about five hundred yards from the enemy, and fired with four pounds of powder

at point blank, to obtain the lowest ricochets. I always prefer ricochet against shipping in smooth water; at a similar distance I should fire, another time, at three pounds. With four pounds our short longs only recoiled about two feet; we had previously ascertained this, and, therefore, only ran the muzzles just outside the ports, when firing with low charges. Previous to entering the Gulf of Lepanto, I had fired at the fortress of Vasiladhi, without success. A previous knowledge of the position of Vasiladhi is requisite to understand this account of our operations; I will, therefore, describe it for the advantage of such as know nothing about the place. It is a miserable little fort, built on a small island in the middle of the canal to Missalongi, and, therefore, commands the passage by sea to that town; for one mile outside there is no more than three feet water, and frequently but one foot; and at about three thousand yards is found quarter less two, where I used to anchor when bombarding it; add to the great distance, the object being but about four feet above the surface of the water, renders it a mark extremely difficult to hit. There is a passage for boats of three or four feet water close to the walls of Vasiladhi; but it is very intricate and winding. At first I tried firing

en ricochet, but made wretched practice of it; all our shells and shot turning off from the fort to the right and left on striking the water, and I do not think we put one, out of about one hundred, into the place; they almost all exploded in the water. The fuzees of the shells may be supposed to have occasioned this deviation on striking the water; yet this was never remarked to such an extent on any other occasion; and as the shot were not more correct than the shells, and as they invariably turned from the fortress, I am inclined to attribute this deviation to the shallowness of the water, and to the mud receding round the fort.

On another occasion I bombarded Vasiladhi, and fired at high angles* elevation, with eight pounds of powder; the weather appeared very favorable, the water smooth, and but little wind; yet our practice was not good; the shells all varied greatly to the right, which was in a contrary direction to the little wind there was; this makes me believe there was a strong contrary current of air aloft. I

* It is to be regretted that the Author did not give the precise angle of elevation at which the guns were fired. Before these sheets were prepared for the press, he was requested to afford the necessary information on this subject, but his death unfortunately took place before the application reached Greece.

also found that some error in the ranges was occasioned by a mistake in filling (during the absence of the officer charged with the ammunition (11) some eight pound cartridges with fine powder. Some days afterwards, I again bombarded Vasiladhi; I fired at the full elevation which our ports admit of with five pounds of powder, the distance about three thousand yards; the direction was correct, and after the third discharge we threw a shell into the magazine, which occasioned the capture of the place. I have now related all the examples respecting the use of shells from guns which have fallen under my observation, and they appear to me conclusive of the amazing superiority they give to the ship using them, over any vessel firing ordinary cold shot.

Let us retrace in our minds, for an instant, what has been said, and I think it will be admitted, that hot shot, shells, and carcasses, may be used from a ship with that degree of security to the party using them, which is consistent with prudence. Hot shot cannot be a projectile generally used from shipping, nor can it ever be the one exclusively used on board of any vessel, owing to the length of time required to heat them, and the limited number it is possible to heat; they may be used in small quantities from steam vessels in the way

I used them. Shells can certainly be generally employed with less danger than ordinary cold shot; because, to render shells effective, you must, or ought to increase the calibres of your guns very much, and, therefore, to diminish the number of your guns, a few being all that are necessary with shells; thus, a vessel, carrying eighteen guns on the present system, might carry eight sixty-eights for the use of shells; so that, in action, instead of having nine cartridges in circulation at once, and nine guns firing, you would only have four cartridges in circulation, and four explosions; you have also (which adds materially to the safety of the thing) so much more room between your guns, and so much less jostling and confusion, and so many more officers to superintend the service of each gun. To this I ascribe the universal absence of accidents on board the Karteria; certainly, not to any superior order or discipline, which was impossible, situated as I was.

Of carcass shells it is scarcely necessary to remark, that they are an excellent substitute for hot shot; but I suspect, that after being filled a short time their effect is very uncertain. The only precautions necessary to be taken in using shells, are to have them placed properly in the guns, and not ram them hard. I had a cavity in my rammers to receive the

fuzee head; wooden bottoms are certainly desirable, and fuzees to screw into the orifice of the shells, so as not to protrude; this would increase the precision of fire. The shells should be filled as full as possible, so as to leave the least possible movement for the powder inside during its flight; and some roche, a few, or any other kind of incendiary composition, might be put in also. At close quarters, say two hundred yards, oblong shells might be used with tremendous increase of effect: they would not require wooden bottoms, and made to contain double the quantity of powder contained in a spherical shell, say five pounds for a sixty-eight pounder, their effect on an adversary would be immense.

It is necessary, in using shells, to pay great attention to the charges of powder, and adopt it to the ranges, so as to avoid going through both sides of an enemy. I had cartridges of 2, 3, 4, 5, 6, 7, 8, 9, and 10 pounds; I used them without any difficulty—any body else can do the same. I should always lay down as a maxim, that any charge, above what will penetrate the enemy's side, is not only a waste of powder, but a mischievous waste of powder; it exposes you to go through both sides of your adversary, and thus lose the effect of the explosion; it diminishes the effect of splinters, it makes a hole more easily plugged up, it renders the fuzee

taking fire less certain, it exposes you to break breechings, bolts, carriages, slides, &c.; and it occasions a loss of time in running the guns all the way out, instead of a part. The system of high charges cannot be too much reprobated, (12.)

Every person in the habit of practising with pistols or rifles, knows this; and the same principle not only holds good, but is increased with the size of the gun. It may perhaps be thought that the use of shells would occasion a double expense in the article of powder; this, if true, is not an objection which ought to be allowed to weigh; because it would be literally a saving, if by doubling the expence of powder in a brig, you could make her perform the service of a frigate; but I suspect there would be a saving of powder, because by diminishing the charges, your average charge of gun and shell would surpass by little the now ordinary charge of a gun in the same sized vessel; whereas, in an eighteen gun brig, for example, you would fire nine with shot, and only four with shells; besides which, one broadside of shells would settle the affair with an adversary of equal size, and it would require thirty or forty, or even a hundred discharges, from each gun, to decide it with shot. I think I now hear somebody exclaiming, that this may be all very true, but it is unfair. If nations will

settle by treaty what arms it is fair to fight with, I will then content myself with telling you, not to be the first to break the agreement, but to be at all times prepared to encounter, with equal arms, whoever does do so; for certain it is, the first nation you beat by sea, will adopt the method which she considers the most likely to beat you in turn.

This objection of unfair is so ridiculous, and so childish, that I should consider I was insulting the understanding of the public by mentioning it, had I not heard it reiterated so often, and by people whose opinions go for something in the world. The fact is, war is the art of killing one's adversary, or taking him, the most speedy way possible; or else why not prohibit all arms but those nature has given us, viz. our fists? I have heard pretenders to humanity talk of the cruelty of hot shot, shells, &c.; it really appears to me the superlative of cant to talk of the art of war (or, in other words, the method of killing men most expeditiously) and humanity in the same breath. However, even this plea will fail, as it is evident, that fewer lives will be lost when the object is to destroy the ship, than where it is to kill the crew. At Tricheri, I believe there were but two Turks killed in the brig we burnt. At Salonas, as nearly as I could learn, nine in the brig were blown up; three

in the schooner abandoned; say in all, fifteen or twenty, out of six armed vessels; which, with the brig at Tricheri, might mount, in all, sixty-two guns and two mortars, which cost the vanquished twenty-two men at most; not an exorbitant expenditure of lives; and the victors had six killed and a dozen wounded; certainly not an increased expenditure of life. I shall be told, perhaps, that all these vessels were either aground or lashed along side the shore, or, otherwise, their loss would have been greater. Not at all so. Had they been at sea, they would only have been obliged to surrender, (which even Turks will do under similar circumstances,) and the loss is the same.

At Vasiladhi, the Turks lost, I believe, about twelve men out of fifty-one; a much less slaughter than if carried by assault.

M. Paischans exults in the expectation of beating the English by sea with shells; for my part, I cannot see any thing upon which he can found his hopes of superiority, unless the English neglect to use shells also, (13) of which there is little likelihood; as even, if they were to allow the French the initiative, they would soon be beaten into an imitation of their enemy. Whilst the English use arms similar to those of their enemies, their success will depend on the same causes as heretofore,

namely, weapons, and ships of superior workmanship—superior skill in the administration and conducting of such ships and weapons, and superior discipline and courage. The question will not be altered; the real propositions will be changed, but not the relative ones; it will be merely A—4, opposed to B—4, instead of A—1, opposed to B—1. The change which this system would make in the art of war, would probably be to reduce the size, and augment the number of ships of war; and to force combatants to keep that respectable distance formerly observed by our good old forefathers, and thus play skill or luck against one another. It is true, that the use of shells, and the probable perfectioning of steam or some other motive power for impelling vessels, will necessitate an improved system of education for our naval officers; and if the instruction of British naval officers is neglected, and those of the French or of any other nation is paid particular attention to, we shall probably be beaten, not because shells are used, or steam is used, but because we use them less skilfully than our adversaries. If, on the contrary, the British naval officers stand, as they should do, a pattern to all the world for theoretical and practical knowledge, British arms will be as successful by sea as they have hitherto ever been. (14.)

NOTES.

1. THE Greeks, in their endeavour to imitate the Italian word, Vapori, were in the habit of calling the Karteria Bampori, Pampori, Vampori.

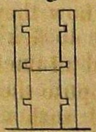
2. The officer commanding the blockade between Missalongi and Vasiladhi, intercepted a letter from the Governor of Missalongi to the Commandant of Vasiladhi, in which the former exhorts the latter to defend himself courageously, which he has no doubt will be successful, as Vasiladhi contains provisions for six months, and water in greater plenty than salt: he informs him that he has sent to Lepanto for sailors, and that, in a few days, he will have fifty large boats, with guns, carrying five hundred men, to raise the blockade between Missalongi and Vasiladhi. As we knew the impossibility of this latter assertion, and as we were satisfied the Commandant of Vasiladhi must know it also, we concluded the whole story to have been arranged on purpose to fall into our hands, and that Vasiladhi, on the contrary, had but little provisions or water: the chances are always in favour of this state of things in a Turkish fort. On capitulating it, we found they really had provisions for six months.

3. Let it not be supposed I depreciate that kind of routine which teaches every body to do the same thing the same way, which preserves a strict uniformity in whatever relates to the service; this is the soul of a military system; and, so far from thinking it carried too far in the British Navy, I imagine, in some instances, it might be extended with advantage: I only allude

to that species of routine which makes the mind reject every improvement, without weighing their merits; which has some such answer as the following ready for every proposition; viz. We have gone on very well till now on the old system, and therefore it is superfluous to change it.

Too strict an uniformity cannot be preserved on all the minutia of service, on board of every ship; the system, of course, should emanate from the Admiralty, each captain, or even every officer, being at liberty to propose, for the consideration of the Admiralty, what might strike him as an improvement, but not to make the slightest change in his ship until the Admiralty should have thought proper to order such change to be generally adopted throughout the Navy. There is, alone, one point of service on which an uniform system, emanating from head quarters, must be prejudicial; I mean the mode of giving battle: this, I believe, in the British service, has ever been left (and very properly so) to the discretion of the officer commanding: the French, I believe, had some very silly reglemens on this head. An officer is unfit for his command, if he cannot be intrusted with this discretionary power; and any one who sets out with the determination to fight, in some particular way, on all occasions, (and I have known many profess this,) may, it is true, be successful, but he is just as likely to be beaten in all that depends upon him: if his crew bring him off, by their superior courage, under disadvantages his incapacity has placed them under, their's is the merit, his the disgrace.

4. The elevating or tangent sights I had on my guns, were perpendicular sights, of iron, fixed on the reinforcing ring, resembling the sights on a rifle, thus,



the top of which, and the sight on the muzzle, form an horizontal line, with the gun at all the elevation the port admits of. It must be admitted, that these sights have the disadvantage of being incorrect, when any motion of the ship throws them off their true perpendicular; but this is an objection common to all elevated sights. I am certain, that without

some such sights, we never could have attained the precision our practice displayed at Vasiladhi.

5. I do not pretend to any very great accuracy, the degrees of elevation or depression at which a gun may be fixed, with the advantage of its shot rising from the water, must, of course, depend on the height of the gun above the water, the size of the shot, and the charge used; shells ricochet better, of course, than shot. The surprising distance our shells went, en ricochet, when firing the first time at Vasiladhi, astonished all who saw it. I should think, that with high charges, and the gun near the level of the water, firing perfectly horizontally, shells would go quite as far, en ricochet, as fired at the angle, giving the greatest range.

6. This warfare was that of the Greeks against the Turks. The Greeks possessed nothing but merchant vessels, mounting from eight to twenty guns, and of these rarely four of the same calibre on board of the same vessel; the calibres varied from three to twelve pounds, and some had a twenty-four pound carronade or two. The Turks had fifty or sixty sail of men of war, from three decked ships, down to schooners, and could put to sea twenty or twenty-five ships of the line and frigates. Whoever knows any thing of naval warfare, will know that the whole of the Greek fleet could not, in twenty-four hours time, have sunk or dismasted a frigate, even supposing that frigate had nobody on board to resist; luckily for the Greeks, neither themselves nor the Turks knew this. The Turks thought (and justly so) that they had achieved an amazing undertaking, when they traversed the Archipelago, without running against a rock; considering how they were manned, it is really surprising they lost so few ships. To man their fleet, they one year pressed all the bakers they could catch: a Christian would suppose their reason to be, that they might be provided with a daily supply of fresh bread; not at all; their reason was, that as the bakers were in the habit of sitting up at nights, they would not fail to keep an excellent watch. Another

time, they pressed some masons they found on high repairing a house; a bribe (without this nothing can be done in the East) released the alarmed sons of brick and mortar; but, as this transaction was illegal, as well as profitable, the same unfortunate individuals found themselves seized upon a second time, but strenuously refused to use their former agreement for a release; they were embarked, as luck would have it, on board the very ship of the Captain Pashaw, and seized the first favourable opportunity of imploring his clemency; he investigated the affair, and finding their complaint well founded, bastinadoed half to death the extortioner, and made him restore the money; not so the masons to their liberty, as they had fondly imagined: no; the Captain Pashaw was a man of more judgment; he knew how to detect merit; and, therefore, after ascertaining who among the individuals was master mason, ordered him to be made captain of the main top, which promotion he was sure would be justified by his conduct, having been previously accustomed to climb so high. Enough of such anecdotes there are to fill a volume.

7. Lord Byron may have been the first poet of his time, but he knew nothing of Artillery, or even of War, otherwise he would have chosen better the people he had about him at Missalongi. I do not know whether I am more unfortunate in what I am about to complain of than other people, but I am usually cursed with having an authority quoted against me, instead of having a reason opposed to me; it always gives me a mean opinion of the intellect of the person quoting, and is frequently even more unjust towards the individual whose name is thus made use of, than towards him whose scheme is thus disingeniously opposed; there is usually some topic upon which any man, however talented, may make himself ridiculous.

8. The Admiralty is, I believe, in possession of a Report on that steam vessel, the Karteria, (Perseverance,) which is any thing but favourable. I am told she was the subject of the official criticism of a

youngster, who had not long finished his course of education at Portsmouth. He declared the vessel too weak to carry her guns, the engine weak and defective, and pronounced the employment of hot shot and shells as impossible, owing to there not being an artillery officer on board,—to sum up, she was totally unfit for the service she was built for.

This vessel, so far from being weak, was so unnecessarily strong, that I would engage to fire eight-inch mortars from the deck at forty-five degrees, without doing her any injury. As to the strictures on the engine, I would lay a wager this youth did not know the working cylinder from the air pump; he hit exactly on the defect (perhaps the only one) which the engine had not; it has its faults, but want of strength is certainly not one. Respecting the employment of hot shot and shells; he is guilty of two absurdities in one sentence: 1st. There was an artillery officer on board. 2ndly. I would qualify, in ten days, most naval officers to use shells and hot shot, quite as well as if there were any number of artillery officers on board. I beg, by the bye, to be understood, that I by no means engage myself to instruct the young gentleman in question.

9. The Karteria was built with her timbers close and caulked together; and would, therefore, have floated without planking. I had several opportunities of remarking the advantage of building thus, to resist shot; nothing less than an eighteen pounder ever came through us; this, 'tis true, might be partly attributed to Turkish bad powder; but those shot that did come through, always made a nice clean round hole without a splinter. However, against shells it would have a disadvantage, as they would be more likely to stick in it. Perhaps if shells become generally used, it will be proper to make the upper works of a ship as slight as is consistent with strength, and iron ribs might perhaps be good. The Karteria had another peculiarity in her build—two solid bulk heads inclosing the engine room, and caulked and lined, so as to be water tight; the intention of this was, in the

event of one part of the ship being leaky from any cause whatever, the water could not flow into another part of the ship. This arrangement, which is due to the ingenuity of Mr. Brent, the builder, once saved this ship from fire, which broke out with great force in the after-part of the engine room, and would have communicated to the shell room very quickly, but for this bulk-head, which kept the fire forward, and gave us time to subdue it. I see no reason why all men of war should not be furnished with similar partitions. The same builder saved another ship (the Rising Star,) from sinking, by this contrivance.

10. If I were writing the history of the Greek Naval war, I should mention the names of the officers who distinguished themselves in taking possession of the abandoned schooner; as it is, I am only describing the employment of shells, hot shot, and carcasses; and the effect was so rapid as to leave nothing to do for the artillery of the other vessel, unless it were to fire at the batteries. The two gun-boats mounted each a short long sixty-eight; and if any thing had been left for their guns to perform, I have no doubt they would have done as much as this vessel. These gun-boats were very formidable craft near the land; one I had with me at Vasiladhi, had beaten off, in the harbour of Kataculo, a Turkish brig of twenty-four guns; she then mounted a long thirty-two; I changed it for a sixty-eight. If she had had the latter gun when engaged with the brig, she would probably have destroyed her. With the sixty-eight, she would have taken Vasiladhi alone.

11. I had an artillery officer in charge of my ammunition. I always thought that the men called gunners on board a man of war were usually the persons on board the least conversant with artillery. An officer of marine artillery would, I should think, be the proper person to entrust the charge of the artillery stores to. In fact, that class of men, the marines, might be made the most useful men in every respect on board a ship. I could say a great deal on this subject, if it were not

foreign to the present work, and sufficient to fill a pamphlet of itself.

12. In the action of the Sea Horse with the Badra Zaffar, all our carronades were rendered useless, by breaking either carriages or slides. I cannot take upon myself to say positively that this was caused by using too high charges, but I am internally convinced such was the cause. An Idriote merchant, a M. Tombrase, had a very fine schooner, mounting, among other guns, a forty-eight pound carronade on a swivel; he complained to me that this gun could with difficulty be retained, owing to its excessive recoil. I enquired the charges used, and found he used five ocars, very nearly fifteen pounds, with a forty-eight pound shot from a gun, probably not more than twenty-eight hundred weight; luckily for him, his powder, I suppose, was bad.

13. It must be recollected that the superiority of matériel frequently gave the British Navy a decided superiority over her enemies. The British Navy was the first to place locks on the guns, to use carronades, and many other improvements. The first of these was so enormous a stride in naval gunnery, that I should think it decisive of any battle fought with an enemy not mounting more than half as many more guns, and using the match. For my own part, I should as soon expect to strike my object from a ship when firing with my eyes shut, as with a match.

I entered the British Navy too late, and was too young to judge when I did enter it, of the comparative correctness of British and other firing; but, judging from what I can gather, our firing was always better than that of our enemy at very close quarters, because our discipline was better, (not to say any thing of superior courage); but, at great distances, I suspect we generally got the worst of it, because their practice was better. Perhaps carronades may sometimes have occasioned worse firing than long guns at short distances, say from fifty to one hundred yards. The sailor having got into his head the notion that shot rise on quitting

the gun, was in the habit (at short distances) of pointing under the object, looking along the line of metal sight; now, if the looking along the line of metal sight of a carronade, he pointed as much below his object as he was in the habit of doing with a long gun, he would always go over his mark at the distance above quoted; because the carronade line of metal gives one degree more elevation than that of the long gun. I know that carronade are cast with dispart sights, but these are clumsily imagined, and sailors knew not the intention of them;—that the officers did not, was proved by the white lines they painted along their quarter sights. There was a time, therefore, when the British Admiralty did not disdain using superior weapons to her enemies. I hope the same spirit still pervades it, and that percussion locks on guns, and all other improvements, whether relating to gunnery or any other part of the service of a ship, will be adopted in the British Navy before they find their way into those of other nations.

14. Is it not strange, that in a nation like England, so proud, and so jealous of its naval force, such pains should be taken with the education of officers of the army, whilst that of the officers of the navy is comparatively disregarded? Is it that people think less science requisite to form a military officer by sea, than by land? Do they imagine that the same education (except what gives the manners and feelings of a gentleman,) suffices indiscriminately to qualify a man to command a collier and a vessel of war? I could say much on the subject of the education, not only of boys destined to be officers, but of officers themselves, if it were not foreign to the object of the work, and I had not already trespassed by digressions too long on the patience of my readers.

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